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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/781,846	02/20/2004	Tae-jin Kim	1793.1173	1657
21171	7590	10/30/2006	EXAMINER	
STAAS & HALSEY LLP SUITE 700 1201 NEW YORK AVENUE, N.W. WASHINGTON, DC 20005			PSITOS, ARISTOTELIS M	
			ART UNIT	PAPER NUMBER
			2627	

DATE MAILED: 10/30/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/781,846

Applicant(s)

KIM, TAE-JIN

Examiner

Aristotelis M. Psitos

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 01 February 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-32 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-32 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

**DETAILED ACTION**

***Priority***

1. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

***Information Disclosure Statement***

The IDS documents filed on 6/9/05 & 2/20/04 have been reviewed and made of record.

***Specification***

2. The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

3. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the appropriate elements that perform the desired:

As recited in claims 6,11,16,17,22 and 31  
must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement-drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the examiner does not accept the changes, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

***Claim Rejections - 35 USC § 112***

4. The following is a quotation of the first paragraph of 35 U.S.C. 112:

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The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

5. Claims 1-31 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter, which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

In particular, the independent claims recite the limitation the dummy data is recorded Not at the interrupted position, but offset therefrom – backward for example. However, how such is performed/achieved is NOT disclosed in the specification.

All the dependent claims fall therewith.

6. Claim 32 is rejected under 35 U.S.C. 112, first paragraph, because this claim is drawn to a single method step – which is analogous to a single means claim – see In re Hyatt – 218 USPQ 195 -. The claim attempts to define all possible steps of performing the function recited, however, applicants' have not disclosed all possible methods/steps, but at best only their method.

#### ***Claim Rejections - 35 USC § 112***

7. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter, which the applicant regards as his invention.

8. Claims 2, 8, 19, 27 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The ability of having “non-standard” value” as recited in these claims is not understood. If a field # is set to a non-standard value this normally is interpreted as some sort of “control”/information that is not accessible by a user, much less to any recorder available to a user. Further explanation as to what applicants' intend by this language is respectfully required.

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As far as the claims recited positive limitations the following rejections are made.

***Claim Rejections - 35 USC § 103***

9. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

10. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

11. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

12. Claims 1, 7, 26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hayashi et al ('246) further considered with JP 10-143980.

Hayashi et al discloses in this environment, the ability of detecting interruptions – when shocks occur and then perform re-recording of information prior to the point of interruption – see the abstract for instance.

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The cite JP document – see abstract permits the recording of dummy data in those portions of track/position if so interrupted.

It would have been obvious to modify the base system of Hayashi et al with the above teaching from the JP document – so as to record/place dummy data in to areas affected by a shock, so as to ensure proper signal recording.

With respect to the apparatus claim 7, , applicants' attention is drawn to figure 1 of Hayashi et al, the encoder (element 20), laser driver (element 30), optical pickup (element 40) atip decoder (element 50), shock detector (element 100) and controller – see discussion starting at col.10 line 45 for instance) is present. With respect to the RF amp (element 41) and binarization limitations, the binarization ability is inherently present because the atip signal is appropriately reproduced/and detected.

With respect to product claim 26, such is considered present.

13. Claims 3-5, 9 and 10, 28,29, 30 are rejected under 35 U.S.C. 103(a) as being unpatentable over the art as applied to claims 1,7 and 26 above, and further in view of Horie('249).

With respect to claims 3,28; obviously if the error occurs during the initial recording track, the disc is treated as a blank disk, i.e., no information has yet to be recorded.

With respect to claims 4,9,29 : "0" data as dummy information/data (or null data) is well known as further taught by the Horie reference. The limitation of claim 4, i.e., dummy data as a "0" value is met.

With respect to claim 5,10,30 : since atip information is present in the base reference, such is considered present.

14. Claims 6,11 and 31 are rejected under 35 U.S.C. 103(a) as being unpatentable over the art as applied to claims 1,7 and 26 above, and further in view of Kadlec et al ('980). Kadlec et al discloses in this environment, the ability of setting a controller (element 350) to be sensitive to shock as an "event" to be detected. Since the controller of Kadlec et al counts track crossings, the establishment of a threshold for a shock condition is considered obvious thereover.

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15. Claims 12 and 17, 18 and 24,25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hayashi et al considered with JP 10-143890 as relied upon above further considered with Ohno et al.

The Hayashi et al and JP document are relied upon as stated above. Claims 12 and its corresponding apparatus claim 18 differ from independent claims 1 and 7 in that the TOC has been replaced by the PMA.

The ability of having PMA in this environment – along with the recording of the dummy positions is well known as further taught by the Ohno et al system – see the discussion with respect to figures 6 and 7.

It would have been obvious to modify the base system as relied upon above in paragraph 10 with the above teaching from Ohno et al, motivation is to permit the recording of the dummy locations in the pma as well as the toc area.

With respect to the limitation of claim 17, such is considered present in the above-predetermined period of time of the base reference.

With respect to claims 24 and 25 atip/sector/frame data is discussed by the Hayashi et al system, and hence these limitations are met.

16. Claims 13-15, 20 and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over the art as applied to claims 12 and 18 above, and further in view of Horie('249).

With respect to claim 13, obviously if the error occurs during the initial recording track, the disc is treated as a blank disk, i.e., no information has been recorded.

With respect to claims 14,20, : "0" data as dummy information/data (or null data) is well known as further taught by the Horie reference. The limitation of claim 4, i.e., dummy data as a "0" value is met.

With respect to claim 15,21 : since atip information is present in the base reference, such is considered present.

17. Claim 16 is rejected under 35 U.S.C. 103(a) as being unpatentable over the art as applied to claim 12 above, and further in view of Kadlec et al ('980). Kadlec et al discloses in this environment, the

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ability of setting a controller (element 350) to be sensitive to shock as an "event" to be detected. Since the controller of Kadlec et al counts track crossings, the establishment of a threshold for a shock condition is considered obvious thereover.

18. Claim 22 is rejected under 35 U.S.C. 103(a) as being unpatentable over the art as applied to claim 18 above, and further in view of Kadlec et al ('980). Kadlec et al discloses in this environment, the ability of setting a controller (element 350) to be sensitive to shock as an "event" to be detected. Since the controller of Kadlec et al counts track crossings, the establishment of a threshold for a shock condition is considered obvious thereover.

Since Hayashi et al does not specify the type of "shock" detector, the use of a track crossing detection for the shock condition is considered obvious in view of Kadlec et al.

19. Claim 23 is rejected under 35 U.S.C. 103(a) as being unpatentable over the art as applied to claim 18 above, and further in view of Yamamoto et al

The ability of having the particular items, relative time, absolute time, etc in the q subcode/channel is well established in this art – see for instance the teaching from Yamamoto et al.

It would have been obvious to modify the base system as relied upon above with respect to claim 18 and further modify such with such well known data items in the q subcode/channel as taught by Yamamoto et al, motivation is to use established signal formatting (q subcode channels) and hence permit the system to be operable with existing playback devices.

### ***Conclusion***

20. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The remaining references are cited as illustrative of alternative shock/interruption writing systems in this environment – note in particular Ono et al with his discussion with respect to figure 3 and the writing of dummy data when the appropriate event(s) and condition(s) exist.



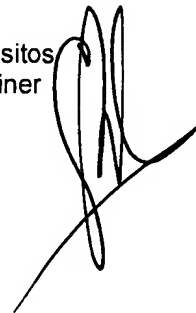
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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Aristotelis M. Psitos whose telephone number is (571) 272-7594. The examiner can normally be reached on M-F: 6:00 - 2:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Dwayne D. Bost can be reached on (571) 272-7023. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Aristotelis M Psitos  
Primary Examiner  
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A handwritten signature in black ink, consisting of stylized, overlapping loops and a long horizontal stroke extending to the right.

AMP